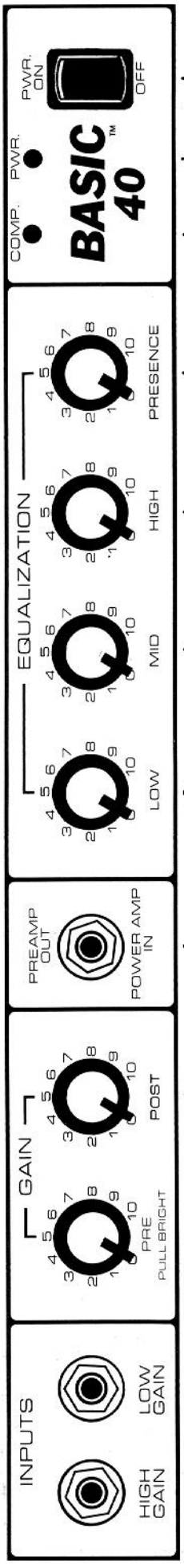
WARNING
TO PREVENT ELECTRICAL SHOCK OR FIRE HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. BEFORE USING THIS APPLIANCE, READ BACK COVER FOR FURTHER WARNINGS.

BASIC 40

OPERATING GUIDE

The Basic™ 40 is a single unit, single channel amplifier which is the smallest of the range in our line of bass amplification. The Basic 40 produces well over 40 watts RMS into an 8 ohm load and is equipped with a very heavy-duty 12" speaker. The chassis and speaker are mounted in a ruggedly-constructed enclosure made of ¾" materials and covered with 34 oz. fabric reinforced vinyl. The system is very portable and will perform nicely for studio applications where levels are not as loud as large concert situations and the beginner bass player will certainly enjoy using this amplifier to its fullest extent for practice or even playing small concerts. While the Basic 40 is our smallest and lowest priced bass amp, it is still a professional system in quality and performance.

Our DDT™ compression circuit (U.S. Pat. #4,318,053) maximizes this amp's performance so that the Basic 40 does not run out of power (headroom) as easily as competing bass systems. The DDT compression eliminates most amplifier clipping and, therefore, keeps the output signal much cleaner than amplifiers without this patented system. We have also included four bands of EQ, a preamp output/power amp input loop, pre and post gain controls, and our very effective "Pull Bright" control. All of the features listed above plus a new enclosure design add up to an unbeatable bass system within this size and power range. A comparison of features, quality and performance will illustrate the superiority of the Basic 40 over anything in its price/power category.



POWER ON/OFF SWITCH

The front panel of the Basic™ 40 includes the on/off power switch and this device is a conventional two position, rocker-type with the *on* indication at the top and the *off* indication at the bottom.

POWER LED

The LED on the front panel which is labeled Power (PWR.) notifies the operator that the unit is receiving power from the AC mains and it is ready for operation.

DDT COMPRESSION

Your Basic™ is equipped with our patented DDT compression circuit which senses the onset of clipping in the power amplifier and allows the system to remain clean. This feature drastically reduces distortion which is normally heard when the speaker receives a clipped (distorted) signal from the power amplifier section. Speakers last much longer and the program material remains much cleaner with the DDT (Distortion Detection Technique) system. There is an LED indicator on the front panel of the amplifier which indicates when the system has gone into compression. There is no need to panic when this light begins to flash as it is merely stating that the system has reached its full power and no more output will be obtained in excess of the power limitations. In a system without DDT the amplifier will continue to try to produce more power than its rated output and this will be noticed in the form of distortion.

EQUALIZATION
PRESENCE EQ CONTROL

The Presence control boosts the high frequency response. This control may be utilized to obtain that extreme high frequency boost that is necessary for playing thumb-slap bass or for any reason where the extreme highs need to be emphasized. Pick noise and fingernail noise may be greatly increased by rotation of the presence control clockwise. By the same token, a player who desires to have *none* of the pick noise or finger noise reproduced may eliminate a great degree of extreme highs by operating the Presence control near its counterclockwise position. The operation of this control is conventional and you will note that it affects high frequencies above the frequency band of the high control.

HIGH EQ CONTROL

The High EQ control determines the overall balance of high frequencies in the response of the Basic™. The action of this control is similar to that of the low frequency and the mid controls except for its high frequency effect. More high frequency content is obtained with clockwise positions while less emphasis is placed on the highs with counterclockwise operation.

MID EQ CONTROL

The Mid Equalizer controls the all important mid-band which greatly affects the timbre and the overall tonal coloration of most any string instrument. The Basic™ may be equalized for the desired amount of mid-range "punch" that is necessary to create those tones that are popular in the studio and during concert situations with this control. This control operates on a 0 to 10 number scale and clockwise rotation indicates more emphasis for the mids while counterclockwise operation indicates less mids and a much "drier" overall tonality. Proper adjustment of the mid-range EQ is vital to the overall sound of many instruments and you should experiment with this control using your particular bass guitar and be familiar with the different tonalities that can be achieved by rotating from full counterclockwise to fully clockwise.

LOW EQ CONTROL

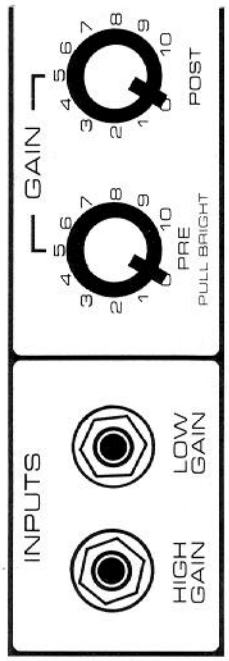
The Low Equalizer is designed to enhance low fundamentals and harmonics for typical bass guitar applications. This control is conventional in operation and is labeled 0 to 10 and allows increased bass frequency emphasis with clockwise settings. When the system needs to be extremely "dry" with less response for the extreme lows, the control should be operated near counterclockwise rotation. Care should be taken not to overemphasize bass response with extreme lows because headroom normally suffers under these conditions. With the Basic™ we are dealing with a moderately powered amplifier and extreme amounts of bass boost will result in significantly less headroom and overall performance.

PREAMP OUT/POWER AMP INPUT

The preamp out/power amp in jack is located on the front panel and is a "stereo" or two position type jack. In order to interface an effects device or any additional equalizer, etc. into the Basic™ 40 system a stereo 1/4" phone plug must be used. The preamp *output* is on the *tip* of a typical stereo plug and the power amp *in* is on the *"ring"* or the *second position* of the plug (see diagram A). When a preamp output only is desired, it is obtained by using a mono 1/4" phone plug inserted only to the "first click." (Care should be taken not to insert a *mono* phone plug all the way into the second position, because the preamp output would be obtained but the power amp would be switched off.) In certain studio applications, however, this second patch with a mono phone plug is desirable when the internal speaker and internal power amp is not needed. For patching in effects devices, the stereo phone plug should be wired as follows: the *tip* connection, (which is the preamp output), should go to the input of the effects device, and the output of the effects device should be connected to the second position of a stereo phone plug, which is the ring. *Shielded cords should be used for all preamp applications!* Peavey offers a patch cord for this purpose in our accessory program. (See Diagrams B & C.) ("Y" Stereo Patch Cable, Peavey Part #0005299)

POST GAIN CONTROL

The *post gain* is, in essence, a *master volume* control. This feature determines the overall signal level of the preamp, which is fed to the internal power amplifier. For concert (loud) applications, the post gain should be adjusted to a fairly high setting, so that the system will operate at maximum levels and remain as clean as possible. For studio and other low level applications, the *post* gain may be backed down to a 4 or 5 setting to optimize residual preamp noise for demanding studio applications. For normal situations, the post gain should be set somewhere around 7 to 10 so that *headroom* is not drastically reduced and then the instrument gain should be set with the *pre* gain control. Be careful not to adjust the *post* gain to a *lower* setting than the *pre gain*



setting when "clean" operation is desired. Many times overload harmonics are desired for certain applications and those *may* be obtained with a very *low* setting of the *post* gain and a fairly *high* setting of the *pre* gain control.

PRE GAIN CONTROL

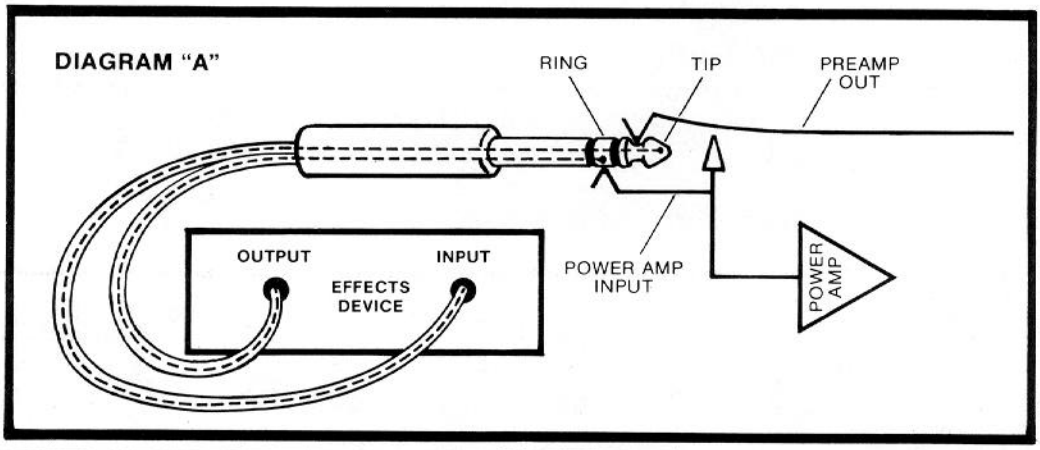
The pre gain control is labeled from 0 to 10 and works conventionally. This is the first control that your signal reaches after being patched through the input jack. This control *must* be used in conjunction with the post gain control for optimum performance.

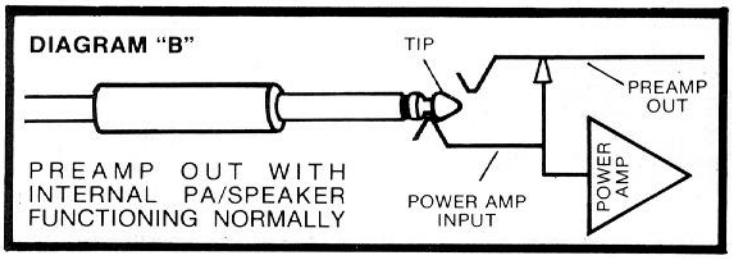
PULL BRIGHT

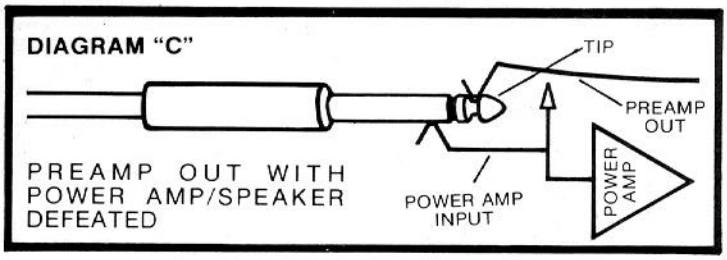
The Pull Bright feature is activated with the pre gain control knob and is simply a pull/push type switch which gives a "brightness boost" at very high frequencies. This control may be used to emphasize pick noise or finger noise as the bass or other instrument is played. To *activate* this control, simply *pull* out the pre gain control, and to *deactivate* this feature simply *push* the control back.

HIGH GAIN AND LOW GAIN INPUTS

The high gain input is the most "sensitive" and should be used first under normal conditions unless an extremely "hot" (high level) signal is patched into the Basic™ 40. If the high gain input should distort the signal, then you should consider using the low gain input. The low gain input is *6 dB* less sensitive and will allow the preamp to take much more signal at the input without premature distortion. If overload is audible then you should determine if the *preamp* is overloading or if the system is running out of power (headroom) with the internal power amplifier. Our *DDT compression* circuit will virtually eliminate any power amp distortion so it is fairly simple to determine if the preamp is being overloaded. Most instruments will patch, as mentioned above, into the high gain jack but occasionally a stronger signal, such as an instrument with a preamp built in, etc. should be plugged into the low gain input.







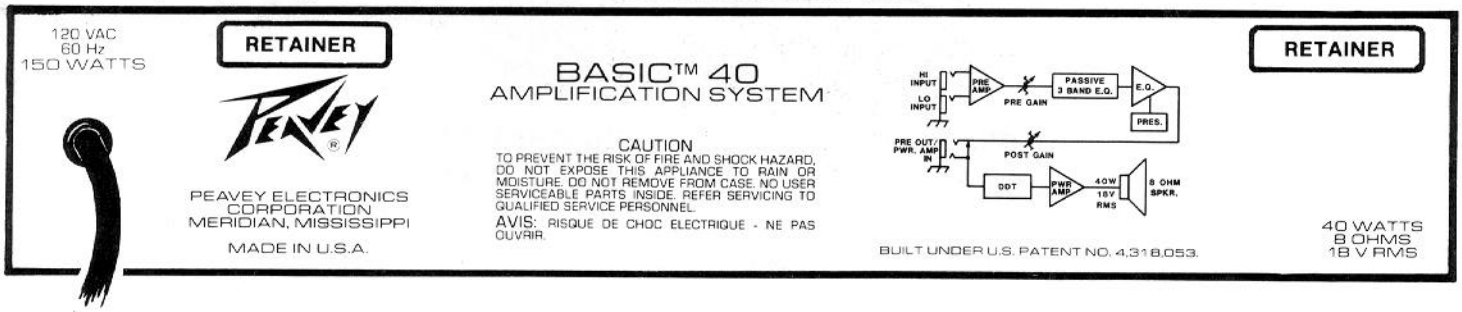
BACK PANEL

LINE CORD

For your safety, we have incorporated a three-wire line (mains cable) with proper grounding facilities. It is not advisable to remove the ground pin under any circumstances. If it is necessary to use the amp without proper grounding facilities, suitable grounding adaptors should be used. Much less noise and greatly reduced shock hazards exist when the unit is operated with the proper grounded receptacles.

LINE (MAINS) CORD RETAINERS

We have provided two large molded line cord retainers on the rear panel to allow storage of the mains cable for travel. In operation the cable should be *completely* unwrapped to allow maximum heat dissipation from the rear panel.



BASIC™ 40 SPECIFICATIONS

POWER AMPLIFIER SECTION:

RATED POWER & LOAD:
40 W RMS into 8 ohms with DDT™ compression and LED indicator

POWER AT CLIPPING: (Typically)
(5% THD, 1 kHz, 120 VAC line)
25 W RMS into 16 ohms
45 W RMS into 8 ohms
30 W RMS into 4 ohms
2 ohms not recommended

FREQUENCY RESPONSE:
+0, -2 dB, 60 Hz to 10 kHz @ 40 W RMS into 8 ohms

TOTAL HARMONIC DISTORTION:
Less than 0.2%, 100 mW to 30 W RMS,
60 Hz to 10 kHz, 8 ohms, Typically below 0.1%

DDT™ DYNAMIC RANGE:
Greater than 16 dB

DDT™ MAXIMUM THD:
Below 0.5% THD for 6 dB overload
Below 1% THD for 16 dB overload

HUM & NOISE:
Greater than 90 dB below rated power

POWER CONSUMPTION: (Domestic)
150 watts, 50/60 Hz, 120 VAC

PREAMP SECTION:

THE FOLLOWING SPECS ARE MEASURED AT 1 kHz WITH THE CONTROLS PRESET AS FOLLOWS:
PRE GAIN PULL BRIGHT OFF (IN)
POST GAIN @ 10
LOW EQ @ 10
MID EQ @ 0
HIGH EQ @ 10
PRESENCE EQ @ 5

NOMINAL LEVELS ARE WITH PRE GAIN @ 5
MINIMUM LEVELS ARE WITH PRE GAIN @ 10

PREAMP HIGH GAIN INPUT:
Impedance: High Z, 220K ohms
Nominal Input Level: -24 dBV, 60 mV RMS
Minimum Input Level: -46 dBV, 5 mV RMS
Maximum Input Level: +6 dBV, 2V RMS

PREAMP LOW GAIN INPUT:
Impedance: High Z, 44K ohms
Nominal Input Level: -18 dBV, 120 mV RMS
Minimum Input Level: -40 dBV, 10 mV RMS
Maximum Input Level: +12 dBV, 4V RMS

PREAMP OUTPUT: (Tip of Stereo Jack)
Load Impedance: 10K ohms or greater
Nominal Output: 0 dBV, 1V RMS

POWER AMP INPUT: (Ring of Stereo Jack)
Impedance: High Z, 22K ohms
Designed Input Level: 0 dBV, 1V RMS

SYSTEM HUM & NOISE @ NOMINAL INPUT LEVEL:
(20 Hz to 20 kHz, unweighted)
74 dB below rated power

EQUALIZATION:
Low, Mid & High Passive Type EQ
Presence Active Type EQ
Pull Bright: +6 dB @ 2 kHz

DANGER

EXPOSURE TO EXTREMELY HIGH NOISE LEVELS MAY CAUSE A PERMANENT HEARING LOSS. INDIVIDUALS VARY CONSIDERABLY IN SUSCEPTIBILITY TO NOISE INDUCED HEARING LOSS, BUT NEARLY EVERYONE WILL LOSE SOME HEARING IF EXPOSED TO SUFFICIENTLY INTENSE NOISE FOR A SUFFICIENT TIME.

THE U.S. GOVERNMENT'S OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) HAS SPECIFIED THE FOLLOWING PERMISSIBLE NOISE LEVEL EXPOSURES:

DURATION PER DAY IN HOURS	SOUND LEVEL dBA, SLOW RESPONSE
8	90
6	92
4	95
3	97
2	100
1½	102
1	105
½	110
¼ or less	115

ACCORDING TO OSHA, ANY EXPOSURE IN EXCESS OF THE ABOVE PERMISSIBLE LIMITS COULD RESULT IN SOME HEARING LOSS.

EAR PLUGS OR PROTECTORS IN THE EAR CANALS OR OVER THE EARS MUST BE WORN WHEN OPERATING THIS AMPLIFICATION SYSTEM IN ORDER TO PREVENT A PERMANENT HEARING LOSS IF EXPOSURE IS IN EXCESS OF THE LIMITS AS SET FORTH ABOVE. TO INSURE AGAINST POTENTIALLY DANGEROUS EXPOSURE TO HIGH SOUND PRESSURE LEVELS, IT IS RECOMMENDED THAT ALL PERSONS EXPOSED TO EQUIPMENT CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS SUCH AS THIS AMPLIFICATION SYSTEM BE PROTECTED BY HEARING PROTECTORS WHILE THIS UNIT IS IN OPERATION.

CAUTION

THIS AMPLIFIER HAS BEEN DESIGNED AND CONSTRUCTED TO PROVIDE ADEQUATE POWER RESERVE FOR PLAYING MODERN MUSIC WHICH MAY REQUIRE OCCASIONAL PEAK POWER. TO HANDLE OCCASIONAL PEAK POWER, ADEQUATE POWER "HEADROOM" HAS BEEN DESIGNED INTO THIS SYSTEM. EXTENDED OPERATION AT ABSOLUTE MAXIMUM POWER LEVELS IS NOT RECOMMENDED SINCE THIS COULD DAMAGE THE ASSOCIATED LOUDSPEAKER SYSTEM. PLEASE BE AWARE THAT **MAXIMUM POWER** CAN BE OBTAINED WITH VERY LOW SETTINGS OF THE **GAIN** CONTROLS IF THE INPUT SIGNAL IS VERY STRONG.

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water, i.e. a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, heater, radiator or another heat producing amplifier.
8. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on the power supply cord. For more information on grounding write for our free booklet "Shock Hazard and Grounding."
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag, or an ammonia based household cleaner if necessary.
13. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
14. This unit should be checked by a qualified service technician if:
    A. The power supply cord or plug has been damaged.
    B. Anything has fallen or been spilled into the unit.
    C. The unit does not operate correctly.
    D. The unit has been dropped or the enclosure damaged.
15. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.

CAUTION

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Printed in U.S.A.
#80370378 1/84